

THE ITE APPROACH

Over the years, traffic engineers, planners, and analysts have become increasingly aware of the intricacies involved in conducting trip generation studies. As land uses become more elaborate in design, the analysis of the site's impact on the adjacent roadways becomes much more complex. In an effort to aid the user, the *ITE Trip Generation Handbook – An ITE Recommended Practice – 2nd Ed.* and *ITE Trip Generation User Guide* (1,9) provides instruction and guidance on using analyses of various land uses and offers guidance related to other issues of importance, such as the pass-by trip phenomenon and trip generation at multi-use developments. This section will primarily focus on summarizing information from these two resources to gain an enhanced perspective on the guidelines for using various land uses, their variables, analysis procedures, and potential pitfalls. It is important to note that *Trip Generation* is a report, and not a manual, and is published to aid the analyst; however, it is not intended to replace engineering judgment or local data (10).

In using *Trip Generation*, the challenge to the analyst is making reasonable estimates of trip ends for a particular development. The report consists of data from many sources across the U.S. and Canada since the 1960's, with significant data from Florida, Arizona, and California (10). It is primarily made up of suburban locations with little or no transit and may not be applicable in a central business district (CBD). The tools used in predicting these trips are data plots of a dependent variable (generated trips) versus any number of independent variables, a weighted average trip generation rate, and a regression equation relating the dependent variable to the independent variable. Guidance is given in the *Trip Generation Handbook* for how to use these predictive tools in an appropriate manner.

Selection of the independent variable is one of the most important decisions in calculating trip generation. Different independent variables are used to calculate trip generation for various land uses. The selection of the independent variable requires that the data is available from existing and proposed sites. This is usually in the form of plan sheets or other applicable materials. Trips should be logically influenced by the independent variable. In many cases, *one* land use could be evaluated using *two or more* different variables. This depends on whether there is a better data set (and thus less